

RESPONSE TO COMMENTS
on the Draft Title V Permit to Operate Renewal
for South Point Energy Center (FM-ROP 07-01)

March 21, 2012

I. Response to Comments Raised During the Public Comment Period

This section contains EPA's responses to all comments on the draft title V permit renewal for the South Point Energy Center (SPEC) that were submitted during the public comment period. The public comment period ran from September 19, 2011 through October 19, 2011. EPA received comments from two parties: SPEC, and Mr. Rob Simpson.

II. Written comments from SPEC

Comment 1

Per Form IE of the South Point Title V Permit Application dated 11/15/2007, a diesel fire pump, diesel storage tank, and brine concentrator boiler are listed as insignificant sources. Except for the diesel fire pump, these sources are not listed in the permit. Please add a list of insignificant sources to the permit.

EPA Response:

Insignificant activities and emissions levels are defined in Part 71 (40 CFR 71.5(c)(11)). Insignificant emission levels are a potential to emit of 2 tons per year (tpy) or less of any regulated pollutant except hazardous air pollutants (HAP), and 1,000 lb/yr or less of any HAP. Emission units that meet these criteria only have to be listed in Part 71 permit applications with sufficient information to determine whether they are subject to any Clean Air Act (CAA) applicable requirements. SPEC satisfied this requirement with the information that it provided in application form IE. Since these units have insignificant emissions and are not subject to any applicable requirements, it is not necessary to list them in the permit. SPEC is authorized operate these units, even though they are not identified in the permit.

Comment 2

Section II.B.2.f. Refers to an Emergency Generator as E/U 03. There is no Emergency Generator at SPEC. Please delete references to the Emergency Generator in the following sections:

- a) *Section II.B.2.f*
- b) *Section II.B.6*
- c) *Section II.D.4*
- d) *Section II.E.2*

EPA Response:

These conditions are Clean Air Act (CAA) applicable requirements from Prevention of Significant Deterioration (PSD) permit AZ-98-01, issued by EPA Region 9 to SPEC on May 24, 1999, to authorize construction of the facility. EPA cannot use the title V permitting process to revise CAA applicable requirements. We have not revised these

conditions. If SPEC wants any conditions of its PSD permit to be revised, it must apply to EPA for a modification of its PSD permit.

Comment 3

Section II.A.3 and II.A.4: Please include a statement that NOx and CO limits are exempt during startup and shutdown.

EPA Response:

These conditions are CAA applicable requirements from PSD permit AZ-98-01, and the PSD permit does not provide for such an exemption. Moreover, the PSD permit, or any of its underlying requirements, cannot be revised via the title V permitting process.

Comment 4

In order to allow the facility the ability to troubleshoot during process or equipment upsets, SPEC requests an exemption to the emission limits in Sections II.A.2, II.A.3 and II.A.4 for a maximum of 10 hours per year per unit.

EPA Response:

These conditions are CAA applicable requirements from PSD permit AZ-98-01, and the PSD permit does not provide for such an exemption. Moreover, the PSD permit, or any of its underlying requirements, cannot be revised via the title V permitting process.

Comment 5

Section II.B.2.c:

- a) Revise reference to Condition II.B.3 to read Condition II.D.1*
- b) SPEC requests that the submittal of the PM10/NH3 analysis be revised to 60 days after source test. This is consistent with the requirement to submit source test results within 60 days of testing (Condition III.A.6).*
- c) SPEC requests that condition II.B.2.c be removed from the permit altogether. The basis for SCR catalyst replacement should be based on the reactivity of the catalyst and not PM10 emissions as long as PM10 emissions are below the established permit limits.*

EPA Response:

As with the previous requested changes, these conditions are CAA applicable requirements from PSD permit AZ-98-01 that cannot be revised via the title V permitting process.

However, EPA is correcting some minor typographical errors in these conditions. Title V permit condition II.B.2.c is PSD permit condition X.B.3. PSD condition X.B.3 contains a cross-reference to the CEMS requirement in condition X.D.1 of the PSD permit. This is the cross-reference that should have been included in title V permit condition II.B.2.c. Therefore we have corrected title V permit condition II.B.2.c so that it cross-references condition X.D.1 of the PSD permit instead of conditions of the title V permit.

Comment 6

Section II.D.1: Please delete the requirement to operate an ammonia monitor. The Condition states that an ammonia monitor shall be certified and operated in accordance with the applicable provisions of 40 CFR 75, however Part 75 does not require, nor address ammonia monitors. Furthermore, ammonia slip emissions are not regulated nor required to be submitted as part of this permit. If the only reason to have an NH3 monitor is to compare emissions with the annual PM10 source test (which we are asking to have removed), we can use slip data obtained by the source testers during the PM10 test instead of continuous emissions monitoring.

EPA Response:

The requirement for an ammonia monitor is a CAA applicable requirement from PSD permit AZ-98-01, and therefore cannot be revised via the title V permitting process.

Comment 7

Section II.D.6: This condition requires source testing in PAG mode. Since 1/1/2005, the facility has accumulated less than 100 hours per unit operating in PAG mode. Most of these hours occurred during the annual source tests. SPEC requests an exemption to testing in PAG mode during years in which PAG is utilized less than a defined number of hours the previous year. SPEC suggests a minimum of 10 hours per unit.

EPA Response:

The source testing requirement is a CAA applicable requirement from PSD permit AZ-98-01, and therefore cannot be revised by adding an exemption via the title V permitting process.

Comment 8

Section III.A.2: Revise “device design capacity” to “device design capacity at ISO conditions”

EPA Response:

EPA agrees and has made the change.

Comment 9

Section III.C.2.b.iii: Revise reference to III.B.1 to read III.C.1.

EPA Response:

EPA agrees and has made the change.

Comment 10

Section III.C.3: Revise reference to IV.C.2.b to read III.C.2.b

EPA Response:

EPA agrees and has made the change.

Comment 11

Section III.H.3: Clarify condition to read: "... limits set forth in Condition IV(B)(3)(ii) of the PSD permit..."

EPA Response:

This condition is a CAA applicable requirement from PSD permit AZ-98-01, and cannot be revised via the title V permitting process. The reference to "the permit" in this condition is a reference to the PSD permit. The cited PSD permit condition number is correct. EPA has not revised the title V permit.

Comment 12

SPEC believes that this Title V Permit would be more comprehensible if the PSD conditions were incorporated into the Title V permit.

EPA Response:

Contrary to the SPEC' assertion, the title V permit contained all the conditions of SPEC's PSD permit, and therefore no changes are warranted by this comment.

III. Written comments from Mr. Rob Simpson

Comment 1

For the reasons set forth below please schedule a Public Hearing for this action.

EPA Response:

Part 71 states that "[t]he permitting authority shall hold a hearing whenever it finds, on the basis of requests, a significant degree of public interest in a draft permit." See 40 C.F.R. § 71.11(f)(1). In other words, a permitting authority, which in this case is EPA, must decide whether the level of public interest in the permit is sufficient, i.e. significant enough, based upon public hearing requests to warrant a public hearing. Here, we received only two set of comments on our proposed permit, one from Mr. Simpson and one from the facility. Moreover, Mr. Simpson's was the only request for a public hearing, and he provided no justification for such a hearing beyond the substance of his comments, which we have addressed in this response to comments. Therefore, based upon this limited public interest and the lack of an otherwise compelling reason, we have determined that a public hearing on this permit is not warranted.

Comment 2

Reconstruction

The Statement Of Basis (SOB) indicates; "The provisions of 40 CFR Part 60, Subpart KKKK apply to stationary combustion turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, which commenced construction, modification, or reconstruction after February 18, 2005. The two gas turbines (E/U 01 and E/U 02) at this facility were constructed in 2001, and have not been modified or reconstructed since then for purposes of NSPS Subpart KKKK. Therefore, the turbines are not subject to the requirements of NSPS Subpart KKKK.

As reported in the April 15, 2006 edition of Power magazine, South Point crashed and “suffered extensive damage to the turbine and generator.” This required an extensive repair, including replacement of parts “that had been destroyed beyond repair.” The full text of this article, SWAT team helps shorten forced outage, is reproduced below and can be found at http://www.powermag.com/o_and_m/SWAT-team-helps-shorten-forced-outage_427.html

Contrary to the SOB, South Point has most certainly be reconstructed, as a result of part of the facility blowing up in 2006, and is subject to the requirements of NSPS Subpart KKKK.

EPA Response:

The NSPS definition of “reconstruction” states, in part, that “reconstruction means the replacement of components of an existing facility to such an extent that...The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility...” (40 CFR 60.15(b)). We note that for NSPS Subpart KKKK, the “affected facility” is each stationary combustion turbine, which means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, heat recovery system, and any ancillary components and sub-components comprising any simple cycle stationary combustion turbine, any regenerative/recuperative cycle stationary combustion turbine, any combined cycle combustion turbine, and any combined heat and power combustion turbine based system.

After we received this comment, we contacted SPEC to gather more specific information on the cost of the turbine repairs performed at the facility in 2006. SPEC spent 10.7 million dollars to repair the steam turbine, while the construction of a new steam turbine would have cost approximately 47.5 million dollars. As the 2006 steam turbine repairs cost less than a quarter of the cost of constructing a new steam turbine, the project did not constitute a “reconstruction” under NSPS; therefore, the repaired turbine is not subject to any applicable requirements from Subpart KKKK.

Comment 3

Acid Rain Permit Ambiguity

The SOB indicates in Section 4.e, “Acid Rain Regulations (40 CFR Parts 72 – 76)” that SPEC is subject to the acid rain requirements of title IV of the Clean Air Act. The Phase II acid rain permit, which is being combined with the title V permit, requires the facility to have allowances for all the SO₂ it emits in each year. SPEC submitted an acid rain renewal application to EPA on November 21, 2007. This title V permit renewal includes acid rain conditions that incorporate the acid rain application and applicable requirements by reference.” It is unclear from the documents if this indicates that there is an Acid Rain permit to comment about or if there was some prior Acid Rain Permit comment opportunity. The Public Notice for this action gives no indication of an Acid Rain Permit comment opportunity. If there has not been an Acid Rain Permit comment opportunity I would like notice of when one might occur.

EPA Response:

The statement of basis clearly states in section 4.e, in the language quoted by the commenter, that “the Phase II acid rain permit is being combined with the title V permit,”

and lists the acid rain regulations (40 CFR Parts 72 - 76) as applicable requirements. The draft permit contains acid rain conditions in section II.C. Condition II.C.3 states that “The Acid Rain Permit Application contained in Attachment A shall be in effect until the expiration of this permit.” Attachment A of the permit contains the SPEC’s acid rain permit application, which contains additional requirements under the acid rain program, including monitoring and sulfur dioxide requirements. While the statement of basis could have been more explicit on the availability of the draft acid rain permit for public comment, EPA believes the language of both the statement of basis and the draft permit were clear that the Acid Rain Permit Application was subject to review and comment. We also note that the commenter could have quickly and easily confirmed the availability of the acid rain permit for comment by contacting EPA via the telephone number or e-mail address provided in statement of basis.

Comment 4

Environmental Justice Analysis

There does not appear to have been any environmental justice analysis conducted as is required. As this facility is located on an reservation, there is a high likelihood of existing environmental justice concerns that need to be analyzed and addressed.

EPA Response: Under Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed on February 11, 1994, EPA is directed, to the greatest extent practicable and permitted by law, to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.

EPA defines “environmental justice” as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” The goal of environmental justice is to ensure that all communities and persons across the Nation, including minority, low-income, and indigenous populations overburdened by pollution, receive full human health and environmental protection. Environmental justice is a central element of EPA’s mission to protect human health and the environment and is one of EPA’s top priorities. Consistent with the Agency’s commitment to environmental justice, it is EPA’s practice to examine any superficially plausible claim that a particular facility may disproportionately affect a minority or low-income community. The Agency does this by conducting an environmental justice analysis when it has some basis for believing there may be a disproportionate adverse impact, and by giving reasoned consideration to any comments raising environmental justice concerns.

The title V permit renewal EPA is issuing to SPEC does not authorize the construction of new emission units, or emission increases from existing units, nor does it otherwise authorize any other physical modifications to the facility or its operations. Moreover, the Title V Permitting program does not generally impose new substantive air quality requirements. Rather title V permits must contain, as the permit we are issuing to SPEC does, monitoring, recordkeeping, reporting, and other conditions necessary to assure

compliance by sources with otherwise applicable requirements originating elsewhere. The commenter has not presented information suggesting that the permit will have an adverse impact, much less a disproportionately high impact, on any minority or low-income populations through this permitting action. In sum, the commenter has not shown that any environmental justice analysis is needed.

Comment 5

PM10 Emissions

The following condition is unenforceable because there is no definition of substantial PM 10 reductions.

II.B. Work Practice and Operational Requirements

2 c. The permittee shall use good combustion control operation on E/Us 01 and 02 for control of PM10 emissions. In addition, the permittee shall monitor and record the ammonia slip levels resulting from the operation of the SCR system using the CEM required in Condition II.B.3 of this permit. Thirty six months after commercial operations begin, and upon completion of the fourth performance test for PM10, the permittee shall evaluate the relationship between PM10 emission levels and the degradation (if any) of ammonia slip levels to determine if substantial PM10 reductions can be achieved by replacing the SCR catalyst. This analysis shall be submitted to EPA within 45 days from the completion of the PM10 source test. The permittee will be required to replace the SCR catalyst unless it can adequately demonstrate, based on the analysis, that no significant PM10 reductions would be gained by doing so. The permittee may request an extension of up to one year for catalyst replacement. EPA may grant an extension of up to one year if the analysis shows that there is no significant benefit to be gained with respect to PM10 emissions by replacing the SCR catalyst. If the extension is granted, the permittee may re-apply for additional extensions at the end of each extension period based on renewed analyses.

EPA Response:

Condition II.B.2.c is a Clean Air Act (CAA) applicable requirement from Prevention of Significant Deterioration (PSD) permit AZ-98-01, issued by EPA Region 9 to SPEC on May 24, 1999, to authorize construction of the facility. EPA cannot use the title V permitting process to revise CAA applicable requirements. We have not revised this condition.

Comment 6

Cooling Tower

The permit fails to provide a drift limit for the cooling tower so the following condition is unenforceable:

“g. The permittee shall install and continuously operate high efficiency drift eliminators on the cooling tower (E/U 06) for control of PM/PM10 emissions.”

EPA Response:

Condition II.B.2.g is also a CAA applicable requirement from PSD permit AZ-98-01, and cannot be revised via the title V permitting process. We have not revised this condition.

Comment 7

Sulfur Content

The sampling frequency of once a year is not often enough to ensure compliance with the 20/grains scf limitation as described in the permit:

15. The fuel sulfur content of the natural gas fired in the gas turbine shall not exceed 20 grains/100 scf. The Permittee shall demonstrate compliance by: [40 CFR § 60.334(h)]

a. Representative fuel sampling data as specified in section 2.3.1.4 or 2.3.2.4 of Appendix D to 40 CFR Part 75.

i. On-going sampling of the fuel's sulfur content is required annually and whenever the fuel supply source changes.

ii. "Annual" sampling is defined as taking at least one sample within each calendar year.

EPA Response:

Condition II.D.15 is also a CAA applicable requirement from PSD permit AZ-98-01, and cannot be revised via the title V permitting process. We have not revised this condition.

Comment 8

Timing of Renewal

According to the Statement of Basis the original Title V permit was issued on June 19, 2003. Accordingly the permit should have been renewed by June 18, 2008. It is not clear whether the permit applicant filed the necessary request for renewal of the title V permit in a timely fashion. The final permit should disclose when the Title V permit renewal was applied for and provide reason for the over three year delay.

EPA Response:

The comment incorrectly states that the permit renewal had to be issued by the expiration date of the initial permit (June 19, 2008). The initial title V permit required that SPEC submit a permit renewal application between six and 18 months before the expiration of the permit. SPEC met this requirement by submitting a timely and complete renewal application on November 21, 2007. The timely and complete submittal of the renewal application allowed the initial title V permit to be administratively extended, i.e. the terms and conditions remain in effect until the issuance of the permit renewal.

Comment 9

Greenhouse Gas Analysis

This permit does not address greenhouse gases in any manner. The permit does not, therefore, comply with the CAA, as described by the EPA in its “PSD and Title V Permitting Guidance for Greenhouse Gases,” relevant sections reproduced below.

EPA Response:

As there are currently no GHG applicable requirements that apply to SPEC, there is no basis to include such requirements in the title V permit. The mostly likely avenue for creation of such requirements would be through a future PSD permitting action connected to a major modification involving GHGs. Such an action has not yet occurred at SPEC.

IV. Summary of Permit Changes

A. Changes Made to Permit in Response to Public Comment

Section III.A.2: revised “device design capacity” to “device design capacity at ISO conditions”

Revised title V permit condition II.B.2.c to that it cross-references condition X.D.1 of the PSD permit.

Section III.C.2.b.iii: Revised reference to III.B.1 to read III.C.1.

Section III.C.3: Revised reference to IV.C.2.b to read III.C.2.b